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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/774,641	02/01/2001	Noriyuki Tanimoto	P63215US1	8750

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EXAMINER

BEX, PATRICIA K

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 06/28/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/774,641

Applicant(s)

TANIMOTO ET AL.

Examiner

P. Kathryn Bex

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4 is/are rejected.
- 7) ☒ Claim(s) 5-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The cancellation of claim 1 is acknowledged and has been entered into the record.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "2" has been used to designate both "interchangable ground joint" and "common grinding", see page 20, lines 14-15. Correction is required.

Specification

3. The abstract of the disclosure is objected to because it contains more than one paragraph. Correction is required. See MPEP § 608.01(b).

Arrangement of the Specification

4. As provided in 37 CFR 1.77(b), the specification of a utility application should include the following *sections in order*. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).

Art Unit: 1743

- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

5. The specification is missing the section, BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74. This section should be placed between the BRIEF SUMMARY OF THE INVENTION and the DETAILED DESCRIPTION OF THE INVENTION.

Claim Rejections - 35 U.S.C. § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2, line 2, the conditional phrase "may sometimes contain" is not a positive recitation, therefore, renders the claim indefinite. Same deficiency was found in claims 5-6, 8, 10.

Penultimate line, "the absorbing liquid " lacks antecedent basis

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1743

9. Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Applicant's admission of prior art, Ono (Summary of Presentations, page. 9 (1996) at Joint Symposium of 63rd Conversazione of Studying Organic Microanalysis of The Japan Society for Analytical Chemistry and 7th Sectional Meeting for Measuring Mass and Force of the Instrumentation and Automatic Control Society).

The method of Ono, as admitted by Applicants in the paragraph bridging pages 6-7, disclose a sample which dropped into the top of a vertical closed combustion tube heated in a furnace, oxygen is blown into from an oxygen port at the upper portion of the tube to burn while rotating the sample in a circumferential direction, and the combustion gas is passed additionally through to burn the sample completely. Then, absorbing liquid is injected from a mechanism for injecting absorbing liquid and all portions including combustion section is washed to absorb the testing components.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

Art Unit: 1743

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 2-4 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (JP 9-274030).

Ono teaches an appliance for containing organic components during heat decomposition, the appliance comprising an upper heating section 2 in the form of a tube 1 and a lower collection section 6. The tube is open at only one of two opposing ends since valves 28, 37, can seal the lower end. The tube assembly is made of quartz, which withstands corrosive gases, oxidative corrosion, and heating to a temperature of at least 600 degrees C. The appliance further comprising an introducing section 14 that cooperates with the open end of the tube to seal the open end, and is capable of introducing sample through the introducing section into the heating tube when closed by cap 24 (Fig. 7), the heating of the appliance being effected only by external means 26 (Fig. 1). The method includes the steps of filling up the tube with oxygen from nozzle 7 and closing the appliance. The tube is heated to combust the organics, and after cooling an absorbing solution is sprayed from a discharge conduit 9 under pressure into the appliance, wherein the absorption solution is then sent to a measuring system.

Ono discloses the claimed invention except for specific the length of the appliance being 10 cm and the amount of oxygen gas used to fill up the appliance which is not less than 2.5 times the amount of oxygen gas required for complete combustion of the sample. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to made the length of the appliance 10 cm, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272,

Art Unit: 1743

205 USPQ 215 (CCPA 1980). Similarly, with respect to the specific amount of oxygen required for complete combustion depends upon the amount of sample and the use of excess oxygen insures complete combustion. Moreover, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Allowable Subject Matter

13. Claims 5-13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter: the instant invention is drawn to a device and method for heat-decomposing a sample containing organics. The method includes filling up the appliance with oxygen, closing the appliance, then decomposing the organics and lastly introducing an absorbing liquid into the appliance. The device includes an appliance-installing section, a heating means and a moving means. While numerous sample autoloaders for use with an analytical combustion furnace exist, none of the prior art teach or suggest a step which include filling up the appliance with oxygen and introducing an absorbing liquid into the tube of such autoloaders.

Conclusion

15. Claims 2-4 are rejected. Claims 5-13 are objected to.

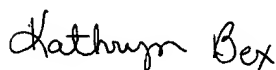
16. The prior art made of record and not relied upon which is considered pertinent to applicant's disclose are Bowe, Jr. *et al*, Hemzy *et al* and Larter. They are cited of interest in that they show various embodiments of analytical pyrolysis autosamplers.


Art Unit: 1743

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Kathryn Bex whose telephone number is (703) 306-5697. The examiner can normally be reached on Mondays-Thursdays, alternate Fridays from 6:00 am to 3:30 pm EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 308-4037.

The fax number for the organization where this application or proceeding is assigned is (703) 872-9310 for official papers prior to mailing of a Final Office Action. For after-Final Office Actions use (703) 872-9311. For unofficial or draft papers use fax number (703) 305-7719. Please label all faxes as official or unofficial. The above fax numbers will allow the paper to be forwarded to the examiner in a timely manner.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.


P. Kathryn Bex
Patent Examiner
AU 1743
June 19, 2002


Jill Warden
Supervisory Patent Examiner
Technology Center 1700